

1/ Lorraine T-3 (1920-4; 1934-5) 1936 AVT Baraboo AVT

WATE III



PREPARING THE THRESHING FLOOR, MUZA (see p. 10)
(note the prepared look in the man's hand)

P 8 (2)

ANTIQUITY

233 *The most livestock that the average household of 10 to 20 persons*
 241 hopes to possess is a tiny flock of 20 to 25 sheep, goats and cows. In
 237 these circumstances manure is more precious than gold, and the small
 592 children who conduct a cow to pasture carry a shoulder basket in which
 every ounce of the day's output is scrupulously collected and brought
 home.

233 When the snow retreats on the upper mountains a few patches of
 green are left here and there, and the more athletic beasts are taken up
 by young men who live in shelters with their charges, collect the
 manure, convert the milk into butter and bring these home with the
 animals when the snows claim their own again. These patches of
 high pasture, several thousand feet above the villages, are all too few
 and can only be reached by serious feats of mountaineering. Through
 field-glasses we could see the grazing animals clinging—by their eye-
 brows as it seemed—to their precipitous 'summer pastures', but it
 was impossible to ride up even on a yak, and at our age impossible to
 climb on foot for a nearer view.

As soon as the trees put out their leaves in spring, each 'donkey
 tree' (i.e., non-fruit-bearing) is stripped of every scrap of spare foliage
 to feed the half-starved beasts. This luxury diet has to be very care-
 fully administered lest the animals should perish of its unaccustomed
 succulence.

● 243 The major crops grown by the Hunza people for their own use are
 [177] wheat, barley, several kinds of millet, sweet and bitter buckwheat,
 nowadays also the highly-valued potato (introduced by the British in
 1892) and small quantities of various pulses. Barley must have been
 the original staple crop, for all the traditional festivals, the Seed-sowing
 of early spring, the First Reaping of early summer and the Harvest
 [242] Home, relate to barley alone. The peasant is wise about rotation of
 crops and the various types of wheat, millet, etc., which thrive best in
 given conditions. Wheaten bread is much preferred to any other, but
 barley remains the larger crop because spring-sown barley ripens three
 or four weeks before even the winter-sown wheat, and the vacant fields
 can be resown with millet; whereas after the wheat only buckwheat
 can hope to ripen before winter. Bitter buckwheat is frankly detested,
 but it is hardier than the sweet and can better withstand an attack of
 early frost, so a certain amount of it is always sown as an insurance.

So poor is the soil, so scanty the manure, that in the newer villages
 like Aliabad, the average return is only sevenfold and even the storeyed
 fields of Baltit, which have been tilled in the sweat of man and woman's
 brow for at least 600 years and probably for twice or thrice as long, yield

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a miserable ten—none of your 'some thirty, some sixty, some an hundredfold'—while lucerne only gives three crops.

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'The Hunzukuts' main food is bread, of which the housewife makes a large variety, from the leavened wheaten cake with butter for feast days, the unleavened flapjack of wheat, barley or blended flours for everyday, to the bitter buckwheat scones of leaner times. Milk is not an article of diet; the animals yield little at the best and none at all when their own offspring is weaned. Such milk as there is contains little fat content, which is not to be wondered at in view of the food on which the animals exist; it is converted into butter, curds and such preservable forms. Butter is stored in birch-bark wrappings beneath an adjacent water-channel and broached only on festive occasions or for the entertainment of a guest. Meat is tasted at most twice or three times a year, at festivals or on some day of domestic rejoicing, a wedding or a birth, and then it will be 'some tainted wether of the flock, meetest for death' who supplies the sacrifice.

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The womenfolk tend small vegetable plots in the corner of a field or separate garden, where carrots, turnips, marrows, gourds and half a hundred kinds of humble 'greens' are grown, and a few plants whose leaves or seeds are esteemed for flavouring, along with a few tobacco plants for the men's pipes. After grain and greens, the essential item of Hunza diet is the apricot, fresh in the early summer and dried during the rest of the year; mulberries, fresh and dried, come next in importance, then a few apples, pears and peaches (these little valued because they will neither keep nor dry) and a few grapes for such relatively well-to-do houses as can afford space and water to grow them. Grapes ripen too late to be dried into raisins and the small quantity not consumed fresh is converted into light wine, brightening the winter days for those who have it, and drunk within a couple of months of manufacture. The apricot has yet further uses. Its kernel yields the oil which lights very modestly the winter nights. The Burusho woman is said to refuse, most wisely, to live above the level of the ripe apricot (say 9-10,000 feet). This is, I suspect only a base pretext of her husband's for refusing to live at these altitudes himself. Be that as it may, the upper villages of Hunza are almost exclusively inhabited by immigrants from Wakhan accustomed to a treeless existence and a diet of barley only. Grafting fruit trees is an art thoroughly understood. The above-mentioned fruits supply the only sugar which the Hunza people know.

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Despite all diligence in tilling the ungrateful soil, despite the utmost

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262 care in rationing the year's supply (rationing begins the moment the first barley crop is harvested), scarcely a household we knew but was out of flour and out of potatoes weeks before the first barley was ripe, and was living solely on turnip tops, greens and edible weeds. 'Starvation Springtime' in Hunza evokes no poet's raptures, only a wailing of hungry babies who, as their mothers apologetically explain 'are too small to understand', and a tightening of the belt by those who do; but never a complaint. How these hardy people exist and work and smile—and keep on smiling—on a diet which no Minister of Health would consider even 50 per cent. adequate in quantity or 10 per cent. adequate in proteins, is a mystery, and must represent a miracle of natural selection over centuries. There are no sick or ailing in Hunza; men, women and children are wiry, tough and fit, and a fair proportion live to a ripe and honoured age, busy to the last about such tasks as suit their waning strength and valued for their experienced counsel, for no devilish inventions—cinemas, wireless or machines—have created a gulf between the generations.

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Harvesting processes are extremely simple. When barley or wheat is ripe, the adults of the family turn out and pull up the shallow-rooted crop by hand, laying the swathes in neat rows to dry. Even when a sickle is used, it is used to pull with, not to cut. As soon as a suitable field is bare, it is flooded, and a circular (more rarely a rectangular) space is enclosed by a small mud wall four or five inches high. When the ground is soft but no longer wet, the whole family, down to the tiniest toddler, forms in line and marks time systematically over the surface to level it. After three floodings and tramlings the new threshing floor is as smooth and even as a hard tennis court. Two neighbouring houses sometimes share a threshing floor which becomes the focus of family activity till the last sheaf is gathered in. The cut crops are stacked conveniently near, and a small quantity of corn is spread on the centre of the floor. Then while Grandfather with his beautifully graceful five-pronged fork throws in more grain from time to time, the team of five cows, loosely lashed together by their muzzles, is driven round by man, woman, boy or girl in turns until the threshing is complete (PLATE III). The person in attendance on the trampling beasts has a switch in the right hand and in the left a wooden bowl as 'dung-dish' in which all excreta of either type are conscientiously collected, not only because the Hunza folk cannot afford to waste an ounce of manure but equally because they are too fastidious to tolerate the fouling of their food. Great was the contempt of our Hunza

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companions who came down with us to Kashmir to observe peasants ploughing with *oxen* (whose wants could be less completely met) and without a dung dish!

When the corn is fully threshed, the winnowing begins in cooperation with a light breeze. Next the winnowed grain is passed through a coarse sieve (*barakbêsh*) whose mesh is composed of thin leather thongs which retain any particles of straw, and it is finally tossed in a finer sieve (*gherbêl*) which retains the grain and lets the dust through. The grain is then loaded into great skin-sacks and carried off to store. The due amount required for seed-grain is set aside first, and not the utmost extremity of hunger would induce a Hunza peasant to encroach thereon. Next, emergencies are budgeted for—births, weddings, dues such as rent (if any) and hospitality, which includes deaths in *other* homes, for relatives and friends would be disgraced if a bereaved family had themselves to bake during the first seven days of mourning. What then remains, represents the year's supply.

Ripe millet is treated by being beheaded, and the ears may then be threshed by cows or beaten with poles according to quantity. The buckwheats are beaten only, even small children merrily cooperating half in fun, half in earnest to show their prowess.

Grain for current use is carried to the mill in sacks or bags of skin. The mill-house is a picturesque cube of stone and mud situated beside a convenient irrigation channel. It may possess one wheel or two. The wheel is a vertical oblong of tree trunk, fitted with 10 or 12 wooden wings; the lower end of its axis is supported on a horizontal pole, the upper fitted into a central hole in the upper millstone. The water is led on to it by a steeply sloping hollowed log. The inside of the mill, lighted only from the door, is fitted with a cross rafter built into the walls on to which the hopper is ingeniously hung by a forked segment of tree. The hopper itself consists of a section of log, tapered and hollowed out. Attached by a string to the small tray below the aperture in the base of the hopper, is a loose clapper which is gently agitated by the rotation of the upper millstone on which it rests, this shakes the tray and encourages a steady flow of grain. The flour as ground is ejected into a hollow trough. Near by, a wooden pole, impaled on a horizontal wooden pin, projects up through the earthen floor. Each end of the pin rests on a 'Heath-Robinson' pile of stones and a simple adjustment of its height regulates the position of the lower millstone and thus the coarseness or fineness of the flour desired. The mill, the loom and the comparatively new-fangled lathe are the only

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Our chief lack at first was shelves and cupboards, but as soon as we had seen what was most needed and what could be accommodated David got busy with rulers and squared paper and drew up detailed specifications, which he sent to the Divisional Engineer's office in Gilgit. They were able to make us the skeletons and send them up in such form that we needed only to screw them together. I then nailed cloth over the back of the cupboards and hung curtains over the front so that we no longer needed to live in the misery of half-unpacked boxes. 000

The bow window of the study where we sat to smoke and take tea looked out on to a jolly little watercourse (about 2 feet wide) which chattered merrily along. On its farther bank is a row of apricot and mulberry trees which, if they break the view a bit, also provide some welcome shade. From the foot of the trees terraced fields fall away, down, down, down to the top of the great cliff—some 500 feet or so—that forms the right bank of the river. We looked right across the gorge (the river, of course, is entirely out of sight, and nothing would lead you to guess its existence if you hadn't just had to cross it) to stark, magnificently-seamed mountains, with tiny fans of green here and there, which are other villages similar to Aliábád on the Nagir side.

The nearer side of our little stream was one of the main highways; and all the life of the place went on in full view of our window. People passed by all day, laden with green fodder for their beasts, or carrying baskets of ripe apricots to dry. The nearest field of lucerne had just been reaped, and then below it the barley field, and we watched them stack the barley and make a circular threshing floor on which to deal with it. They flooded a patch of the newly reaped field, built a little circular wall of mud about four inches high round it, then flooded it twice more, and then when it was nearly dry a whole family, from grandfather down to the small boys and girls, systematically tramped it down with their bare feet till the surface was as smooth and level as a hard tennis court. 487 243 ●

Jolly youngsters of all sizes romped in the new-cut fields, snowballed each other with clods of dry earth, tripped each 257

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157 them in the fields and ask what they were at, and why, and what their various implements were called. They were quick to understand what we tried to say, and except when several of them talked at once we could usually make out most of their replies. They often started amusing arguments among themselves, not agreeing about certain words, just as at home you can set a discussion going in any company about "apple dumplings" or "pies."

243 I had a most entertaining half-hour my second afternoon.

123 Some women and little girls were beating a pile of green stuff on the threshing-floor just below, whacking it with a sort of wooden mallet. So I ran out (with pencil and notebook), greeted them, and sat down beside them on the nice dry ground and watched the whole performance. The crop was a small lentil or purple pea, and the heap was a pile of plants, stalks, roots, pods and all. They just beat and beat till all the pods had burst open, then piled pods and seeds into a big sieve and tossed it till most of the seeds were shaken out. Next they transferred it into a big flat tray and shook it to and fro till they could skim the pods off the top. Everyone was taking a hand, and after I had jotted down all the words I could conveniently collect, I took the various articles in turn and caused much amusement by saying carefully: "This is a sieve, I toss the lentils," "This is a tray, I shake it to and fro," etc. I felt rather like a star turn at a variety show, and brought down the house at the end with: "This is a little thorn bush, I sweep up the threshing-floor."

123 It is a sort of improved Berlitz method of teaching yourself. I found that when my Burushaski ran out I could still delight them by chattering on in English in a friendly way. They felt the goodwill, and they didn't know I was saying: "You're a nice-looking little minx, but you'll look better when you wash your face." I got most of their names written down, and then when they began to get ready to go home I had a romp with the small ones, who ran off squealing when I tried to catch them, just like English kiddies of the same age. I hadn't had such fun since our own youngster was small enough to romp with.

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283 strip is folded and placed in the second chamber. When she
415 has enough of these *dapping* prepared, she takes out her little spindle, also shaped at home, puts the point of it into a little dish like a small ash-tray, which prevents it from wandering about while she rotates it. Then with a *dap* of wool in her left hand and the spindle in her right, she conjures somehow a fine even thread on to the whirring spindle. So many *dapping* make a spindleful, so many spindlefuls make a ball, so many balls suffice for a winter cloak. Undoubtedly you must learn as a child. The shape of the *pfurikus* makes it most convenient to carry; even if you have a child on your shoulders and a basket on your back, it sits under your arm and stays there of itself, one circular chamber projecting back and front. The little ash-tray is cleverly moulded by the women from the malleable mush left when they have squeezed every drop of oil from their apricot kernels. It dries in a day or two and serves for many a year.

● 243 There was a jolly family party who worked the fields just below our house. I used to wish the fields didn't slope down and down and we could then have watched them better from the windows. When we arrived they had just reaped two fields of wheat (which ripens a fortnight later than the barley) and piled the sheaves in two big stacks. Then they made their threshing-floor as earlier described.¹ When the floor was dry they spread the entire circle 2 or 3 feet deep with cut wheat and got a team of five cows, tied their muzzles loosely together with a soft rope round each and then drove them round to tread out the grain. It is usually a woman or girl who drives the team, but sometimes a man or boy will take a hand. The outside beast has, of course, to make the biggest circle, while the centre one just buzzes round as nearly as possible in the same spot. As the driver gently touches them with her switch she keeps shouting "Hai, hai, hai!" to encourage them. When she gets tired one of the others comes on duty and she goes and sits down in the shade of the *uack*. As you can imagine, it is pretty hot in the noonday sun. I joined the women in the shade where they sat spinning away and keeping an eye on the toddlers. There were two dear little girls, Shamuli and

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1 [See p. 77, Cat. 116 - 243. - - *Para. 145*]
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FIRST WALKS ABROAD

There were two dear little girls, Shamūli and 524
 Banu, about six and four, who played with me and let me 177
 tickle them with straws and play "One little pig went to
 market . . ." with their dusty little toes. This game proved
 such a success that I roughly translated it into "One little sheep
 went to drink. . . ." They would never have seen a pig, and
 if they had they ought to think it unclean, so I thought a lamb
 was safer. My first version gave one little lamb bread to eat,
 "bread" being a general word for "food." This caused great
 laughter: "Lambs wouldn't like bread, Mother dear." "Well,
 what do you think they'd like best?" "Oh, grass or leaves."
 "One little lamb had grass to eat and one little lamb had none."
 Thus amended, my little rhyme was approved, and other
 youngsters turned up to play "little lambs" till the game grew
 so popular that whenever I sat down on anyone's threshing-
 floor baby feet would be stretched out towards me: "One
 little lamb, Mother . . ." till I got quite tired of ". . . baa,
 baa, baa, all the way home," but it never palled on them.
 Centuries hence, when we shall have long been sleeping in
 the Garden of Rest at Golders Green, some anthropologist
 will come along and wonder what process of "diffusion" took
 "one little pig" to Hunza, or whether Hunza spontaneously
 generated the jingle for itself.

My pencil and little notebook were a great source of amuse- 124
 ment, and the youngsters would crowd round: "Have you put 476
 my name in? I'm Shamūli." "So you are; but whose Shamūli
 are you? I've got two Shamūlis already. Who's your Daddy?
 How many brothers have you got; how many sisters, are they
 bigger or smaller, what are their names? And which house is
 yours?" Thus gradually I got to know most of our immediate
 neighbours, but it was no easy matter to sort the families out,
 for groups would gather on each other's threshing-floors, and
 anyone whose own immediate work was done would join in to
 help the workers. I finally gave numbers of my own to all the
 nearest houses, and tried bit by bit to plot out the various
 relationships.

Meantime the threshing went steadily on, and I noticed that 213
 the driver carried always a flat bowl shoulder high in her left 237
 hand. "Now what's that for?" asked I. "Why, that's the dung-

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- 243 dish," and right enough the driver quickly anticipated her cows' needs, and when her dish was full went off and emptied it on a little heap of manure. You thus keep your grain uncontaminated and salvage your manure—most priceless of products. If the driver lapses into a daydream a warning yell from the onlookers would call her attention back in time. I don't know whether the dung-dish is in use elsewhere, but it is at any rate one more symbol of Hunza fastidiousness. You plough with oxen, but you thresh with cows, whose slighter needs can also be forestalled. When all the wheat is thoroughly trampled the men take great wooden five-pronged forks, most gracefully shaped things (made, of course, at home), and towards evening when there comes a little breeze they toss the broken wheat up into the air to winnow it. The broken straw is blown to one side while the heavier grain falls into a heap. Then they take wooden, home-made spades and toss the grain again to get rid of any remaining straw. These processes take many hours' hard work, and will not be completed in one day; but they have no rain to fear and can leave their stacks of straw and [412] heaps of grain from one day till the next. They leave their threshing-floors unguarded when they go home at night; pilfering a neighbour's food is simply "not done."

[674] When the winnowing is over the women take a big sieve, made of thin strips of leather criss-crossed over a round frame. This is coarse enough to let the grain through but to catch any scraps of straw. When this first sieving is over, they take a finer sieve (with, of course, a totally different name) which keeps the grain and lets the dust fall through. But even then they don't consider the job quite finished. The women turn the pile over with their hands, carefully picking out any sliver of straw that may have previously escaped. When at last it is ready, the grain is filled into large skin sacks, which will take up to 160 lb. or so, and the men carry these off to the store-room while the broken straw is loaded into huge open-ribbed baskets that can also be carried only by a man. The straw is taken up on to the flat roof and poured down through a central hole into the straw shed.

340 There is no hard and fast rule about what is woman's work

ILLNESS CALLS A HALT

Above and below us as we rode the barley harvest was being 243 ●
 speedily gathered in; family groups were reaping, threshing,
 winnowing, while the more advanced were already hastily
 reploughing their land for various kinds of millet. Though the [132]
 Hunza summer is short, the sun at these heights is hot, and
 with luck each hard-worked field will bear two crops a season.
 The barley field which is soonest clear will ripen a later crop
 of millet; the wheat field, ready a fortnight or three weeks
 later, will still be in time for one or other type of buckwheat.
 Barley must in olden days have been the standard crop, for all
 the sowing and harvest festivals centre round it. But the
 Hunzukuts¹ of to-day vastly prefers wheaten bread and sows as
 much wheat as he dares. Even the winter-sown wheat, how-
 ever, ripens later than the spring barley, and since every
 ingenious device of agriculture only "just gives what life
 requires, but gives no more," he cannot afford to concentrate
 on wheat alone. Each year the peasant farmer makes his calcu- [242]
 lations afresh; experience has taught him much about the
 rotation of crops, the different varieties of grain that each field
 —according to soil, water, and aspect—can most profitably
 bear, and his gamble with nature is a highly intelligent one.
 In the opener fields of Aliábád we reckoned that the propor-
 tion of wheat to barley was roughly two to one, nearer Báltit
 one to two.

If later in the year you point to a field and ask "What crop
 is that?" the answer will not be "Such and such a millet, or
 such and such a buckwheat," but the name of the growing
 crop with the additional information "On top of wheat" or
 "On top of barley," which will give you the difference of
 some weeks in the date of sowing and probably also indicate
 some subtle difference in the quality of the soil if you have
 learnt enough basic agriculture to interpret the facts aright.

Our narrow mountain track skirted the face of a magnificent 644
 amphitheatre of storeyed cultivation, plunging every now and
 then into welcome belts of fruit trees, willows and poplars,
 crossing foaming mountain torrents in cracks of the hillside,
 none too easy to ford in July, though only rock-strewn gullies

¹ Hunzukuts is both singular and plural.

PLATE IX



1. Threshing. (See p. 100)

2. Winnowing. Foreground, Afzato and Yaman. (See pp. 102, 147)



[Facing P. 112]

Facing P. 117



1. Damping
women.
(for p. 117)



2. Allen
ploughing.
(for p. 117)

PLATE X



3. Allen
sitting. Small boy
interrupted to
game of
"Sant-palo."
(for p. 114)



4. Party of
women
sitting.
(for p. 114)

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PLATE XI



Stone field. Background. Ridge in cloud. (See p. 111)

[Facing P. 118]

Chapter 18

SEPTEMBER HARVEST

SUMMER is a breathless time in the Hunza fields. No sooner 243 ●
 does the ripening grain show a fine "fox-brown" than a line 516
 of five or six men and women attack it in unison. They do 512
 not "reap" in our sense of the word. They squat in that in-
 imitably convenient way that the East has preserved for work-
 ing—no backs bent with stooping, no knees worn out with
 kneeling—and grasp a full handful of the ripe stalks and pull
 up roots and all; first right, then left; clap the two together to
 shake off the all-too-valuable earth; lay the bundle behind
 them; shuffle on a pace and repeat. The fields are small and in
 an incredibly short space of time a golden field is prostrate
 and the ground carpeted with neatly aligned rows of swathes.
 It is beautiful to see a party at work: father and mother,
 daughters, sons, and wives; they space themselves and keep
 their line as exactly as soldiers on parade, yet each works indi-
 vidualy, each at his own pace and in his own way—without
 haste and without pause. They possess rude iron sickles, but 412
 when these are used at all they are not used to cut, but merely
 to pull against, if the crop is more than usually deep-rooted.

When the *shandim* (cut crops) have lain a little and been 243
 turned over once or twice they are tied into sheaves and 482
 gathered into piles, some as big as a man can carry, others
 smaller to suit a boy—according to the "man-power" available.
 A double goat's hair rope is slipped round the waist of the
 pile and ingeniously knotted so as to leave two shoulder loops.
 The man or boy flings himself down backwards on to it, slips
 his arms through the loops and hitches the rope fast. Then
 some kindly bystander gives a touch to the load from behind,

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- 243 and by a gymnastic miracle the bearer staggers to his feet,
 482 almost invisible under his tossing burden, and sets off at a
 243 trot up a steep flight of rough stones, or a boulder track, or a
 rude wooden ladder laid against a high field wall, to the thresh-
 ing-floor. Beside this, a stack is built by other workers as the
 loads come in. A core of several upright sheaves forms the
 centre; layers of other sheaves are laid symmetrically round
 these, heads to centre, roots out, till the stack is 5 or 6 feet
 high. The priceless grain is thus beyond the greed of passing
 goats, and if rain threatens a carpet flung on top suffices to
 keep the whole erection dry. The moment the *shandim* are
 off the ground the children drive their tiny flocks, one minute
 cow, a couple of sheep and goats, on to the empty field, and
 the hungry beasts greedily snatch at every green blade of grass
 or weed they chance to sight. There is cruelly little. In the
 early days the crop is diligently and systematically weeded, and
 even after the grain has reached some height the field is in-
 vaded every few days by the women and children in the hopes
 that some further weeds may be detected and carried off for
 fodder. The two stages of weeding are quite distinct. I was
 much laughed at one day, when the second stage had set in, for
 asking a party of crouching women whether they were "weed-
 ing." "Oh, no," they said, "weeding time is long since
 over; we are just fetching some green stuff for the cow."
 Both weedings are done so thoroughly that the expectant
 beasts who invade the new-reaped field have quickly cleared
 the few remaining stalks.

857 When the fields are temporarily empty a great feeling of
 freedom pervades the land. The boys rejoice in the rare luxury
 of flat open spaces for foot polo, tip-cat, races, rounders, and
 a dozen other games; the weavers seize the chance to lay out
 their warp and the girls romp and play ball—"the fields are
 free" is joyfully remarked on every side. DL and I rejoiced
 no less in being able to walk side by side on the flat—an experi-
 ence foregone these many months—and take short-cuts from
 one farmstead to another without the usual boulder-jumping
 scramble.

But the freedom of the fields is short-lived.

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While one party is busy on the threshing floor, the empty ²⁴³ field is watered, ploughed, and sown again, and before the barley and wheat are well in store the bare fields are green again with the second crops, which seem to understand that they must grow at the double or be doomed.

There are two major kinds of millet grown: the one (called *bay*) has graceful feathery heads not unlike rice, but that the grain is smaller; the other (*cha*) has a tight-packed ear, also with tiny grains like what we call "canary seed." There are many varieties of each. When we arrived in mid-July the barley had all been reaped, and we just saw the wheat come in, but we were happily in time to see the second crops sprout, ripen, and fall. There are also two kinds of buckwheat sown. The sweet buckwheat is a lovely plant with fine dark leaves (something the shape of lilac leaves) and a glorious head of pink feathery blossom; the bitter is a smaller plant with lighter yellow leaves and a minute, unimpressive yellow flower. Neither of the buckwheats is really liked as food, ²⁴³ and the bitter is definitely disliked, but they are food, and a skillful ²⁶² housewife contrives to mix her flour so as to cke out the wheat and barley with a proportion of the buckwheats that is not too unappetizing and not inflict more "bitter buckwheat scones" on her family than she can help. The only reason that the bitter buckwheat is grown at all is that it can better stand the onset of winter, and, if the first crop is delayed, or if winter sets in untimely soon, it is a safer thing to gamble on.

When the terraced fields of Hunza are full again, with ²⁴³ waving *bay* and stately *cha* and seas of pink blossom send their delicate perfume drifting over the mountain side; when the trim field walls are vertical rock-gardens with wild thyme and the like crowding their crevices; when the fruit trees are still in full leaf, each variety of apricot turning a different shade of gold and red and flame; and bunches of green and red grapes are ripening under the pergolas of vines, while over all the barren mountain sides glare down and the snow peaks tower into a sky of burning blue—there are no words to tell the country's loveliness.

By the beginning of October the proud millets are laid low.

SEPTEMBER HARVEST

- 243 They are treated differently from the two first crops. You do not throw the whole stalks with roots and ear on to the threshing-floor. You tie a bundle up with one of its own stalks, then cut the ears off and thresh them by themselves, stacking the straw separately. I would scramble up when the millet was being beheaded, sit down with the workers, take out my penknife and ask leave to help. It was the greatest fun. Of course I could not work nearly as fast as others, but in itself the work is light and it makes opportunity for easy conversation. When I first turned up at one or other of several threshing floors—there were a dozen or so within comparatively easy reach—there would be only a couple of women who always made me enthusiastically welcome, but in a few minutes the mad Englishwomen (as I presume I must have appeared) was spotted from afar and quite a crowd soon gathered round; most would come and join in; a few would just politely stare. I always found it far harder to talk when there were a lot. The youngsters all crowded in behind me, and the elder ones constituted an informal advisory committee, for "Mother" was curiously thick-headed and not always sure whether an odd-looking ear was diseased and ought to be thrown away or was merely a little unripe but quite good. I consulted them in doubtful cases till I got to know; then I found that the young monkeys were beginning to think it a joke to pull my leg by misadvising. Fortunately I had learnt the difference before this bright idea struck them, and so I could turn the tables—"a beautiful farmer you'll make if you don't know a bad ear when you see it," said I; "I'm sorry for your poor wife, but perhaps you'll never get one!" and the joker slunk back a pace amid the titters of his friends. At first all my offers to "help" were met by considerate remonstrances—"You'll spoil your hands; it would be a pity." But I laughed and said "They'll wash!" I have always loathed to see a woman with milk-white hands, massaged and creamed and manicured and obviously useless, and have taken a—probably perverse—pride in my own square, ugly, little-cared-for, useful paws. In what odd ways one's snobbishness will out! But I must confess that even the mildest field work tears your skin most uncommonly.

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When the threshing floor is heaped with ears, some people 243
 turn cows on to trample them; some people prefer to beat the
 heap with sticks. It depends, I expect, how many cows you
 have without borrowing, or how many stout arms to wield the
 flail. It is rather fun to see a family beating, even the children
 hammering away with tiny poles. The Hunzukuts are kind to 593
 their kiddies and fond of them, but have happily no time to 857
 spoil them, and as the children have always something new and 861
 interesting to do they are very rarely troublesome. If they are,
 some grown-up will give them a mild smack on the head (the
 little cap prevents its hurting much) and all is well again. If a
 child is sick they carry it out with them to the fields (no one
 can be spared to stay at home to mind it) and chuck a cloth
 over it to keep the flies off, and let it lie there in peace till it
 feels better. The youngsters work just as long as they feel
 interested, then fade away and play for a bit, and join another
 group and work a while again. There seems to be no attempt
 to force them or even overtly to encourage them. Their own
 instinct is to copy the grown-ups or next-older brother. Yet
 the sense of responsibility wakes early; a five- or six-year-old
 is often in charge of the two-year-old toddler, rejoices in
 steadying him as he tries to walk or in mounting him on the
 shoulders to cross a water-channel or climb a wall. We used
 sometimes to feel a little anxious about the baby's fate, but its
 mother never did. I have never heard a Hunza mother shout
 "Don't do that, darling," or "Take care, you'll drop the
 baby," or "Don't go so near the edge, you'll fall." Hunza
 consists of "edges"—the house-roof, the field, the reservoir,
 the cliff—and no doubt Nature in the course of centuries has
 weeded out the stocks that lose their balance. Our occasional
 solicitude was the cause of much merriment; we could not
 always suppress a "Take care, you'll slip," and this became a
 standing joke amongst our smaller friends. If all other con-
 versation failed a jesting cry from someone of "Take care,
 Mother, you'll fall" would set the ball rolling again. Jolly little 000
 scamps they are, and pleasant companions for a walk. I counted
 seven in front and three behind me one day, all between five
 and seven, with two or three babies mounted on the others'

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capriciously from side to side between its beaches, was 500 or 133
 600 feet sheer below, and the great crumbly earthen cliffs on
 each side were most ominous-looking precipices. There are no
 paths down them except where a side gorge comes in at in-
 tervals. At the spot where I struck the bank there had been a 133
 great fall of cliff not long before which I completely carried 312
 away a new aqueduct they were—rather too hopefully—
 trying to engineer across the face of it. If the aqueduct had
 been successful it would have coaxed some water from the
 Hasanabad glacier on to a jutting promontory, potentially
 fertile, but at the moment as bare as the palm of your hand.
 Six men went over and two of them were killed. Risks like this
 are all in the day's work in Hunza. People were still prospect-
 ing for a more hopeful alignment, but my amateur eyes could
 see no earthly possibility of getting anything to cling to the
 friable face of those terrifying cliffs. Meantime I stood well
 back from the edge! It was pathetic to see gardens and trees
 within two inches of the treacherous brink and to realize that
 the farmer on whose land I stood had lost a fertile field or
 two and half his orchard. I noted that I must go back some day
 when the light was right and see whether (without committing
 suicide) I could get a photograph right down the gorge with
 Rakā, of course, rearing herself up in the background. When 132
 the light was good it was still very hot in the sun (88° in
 the shade on an October afternoon), and rocky scrambles
 over shadeless boulders with a climb of some hundreds of
 feet to get home were not exactly restful, and I'm not so
 young!

One autumn morning when I was on the prowl I found a 243 ●
 man just about to turn on a small team of cows to thresh a
 pile of millet heads. He and his children were busy with this
 in the centre of the floor, while a neighbour and his family
 were beheading another variety at one side. Two or even three
 neighbours seem amicably to share one threshing floor so as
 not to waste valuable ground. So I squatted down as usual with
 my penknife and joined the beheading family and watched the
 threshing. Only three cows were in the team this time—the
 millet-heads make a very small heap in comparison with the

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- 243 wheat—the usual “Ha! Ha! Ha!” encouraging them and the usual dung-dish unostentatiously circulating behind. It was an interesting, very typical scene, and not a hundred yards below
 600 our house. I sent a message up to David (there is always a small candidate to act proudly as messenger) to tell him that he might care to bring his camera. In a few minutes he was picking his way cautiously down the breakneck track while a great cheer of welcome rang from the little crowd. They had all been genuinely concerned about his illness, and were delighted to see that he was better and able to come down and watch things himself. It was his first visit to one of the field working parties. He sat on a low wall in a tiny speck of shade, made friendly chat all round, and was a great social success.

- 601 While I pottered each morning in the fields, enjoying myself
 124 among the people, he was usually hard at work indoors with Qudrat Ullah, taking notes of how the irrigation is managed and the system on which the water is distributed by clans and families, and working out genealogical trees. This latter is a weary affair but most useful, for it gives you insight into all their marriage alliances, how many children each family has, how many boys and how many girls, who is allowed to marry whom, and what the relationship terms are, both in the vocative between the various members of a family group, and in the third person when others are talking of them—a highly complicated but most instructive subject. An elder brother will
 601 address the younger by one method, while the younger will use a more respectful term towards the elder; all the younger boys of a family will use to their *eldest* sister the same respectful form of address as to their eldest brother, though to the uninitiated it would seem to imply that she was a male. A man addresses his wife's father and mother in precisely the same terms and with the same respect as his own. A child's “uncle” is a mother's brother only; the father's brother is “Little Father” or “Big Father” according as the speaker's own father (about whom there is no ambiguity) is older or younger than the uncle concerned. The children of brothers who all share the one home speak of each other as brother and sister, unless there is need to be more explicit, in which case they will

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000 the typing seemed waste of time that ought preferably to be spent out among the people themselves, but there is a limit to the amount of "field work" you can usefully put into one day, and it was invaluable for me to have to work carefully through the information David had assembled in the study while I was more frivolously employed outside.

- 243 I seem to have wandered from the harvest! There is not much more to mention. When the sweet buckwheat was ripe and the gay, sweet-smelling flowers succeeded in due course by small black seeds, when the plants are "covered with black flies" as they picturesquely put it, they are gathered to the threshing floor and beaten with sticks till the seeds fall off and the straw can be stooked to dry. The less romantic bitter buckwheat follows suit, and last of all the potatoes are dug just as at home. The potato crop is much valued, and due credit is given to the British who introduced it: "We can't imagine how we used to manage without potatoes," they say.

[17] After this the fields were bare again—for good. It almost brought tears to my eyes to see the jolly little threshing-floors, where I had spent so many happy hours, flooded with the rest of the fields and ploughed up for the winter. About half the fields round us were left fallow till the spring, the other half were hastily resown with winter wheat, whose early shoots were the first green to greet our eyes next year.

MARRIAGE IN HUNZA

561 Hurmat was telling me about his home affairs one day: "Our
988 father and mother are fortunately still with us; they can't do very much nowadays, of course; but they are still able to give us orders, thank God." And he meant the "thank God." In the same way the uncanny skill of the old *rili gur* in husbanding the year's supplies is fully appreciated, and her skill with wool and spindle still puts her daughters-in-law to shame.

888 Old Aliko of No. 1A was past all serious work, though he
159 kept up a plucky effort to preserve his youth by the constant dyeing of his fine white beard; but he was a renowned sower and could spread the seed more advantageously on the prepared field than younger men. There is no reckless wastage of precious seed-grain in Hunza; it is never flung where thorns could spring up and choke it, nor by the wayside to be trodden by the feet of men. And the neighbours would call Aliko in to sow for them. A real centenarian is a family treasure. Old Aliko's father was still living at the old homestead in Dorkhan with the other brothers (Aliko had hived off to Aliabád), and we made a special journey by request to see him and take his photograph. He was seated on a roof commanding a magnificent view of a steep hillside on which the farmstead straggled downhill in several storeys, as Hunza houses often do where the ground is steep. He had put on his best silk robe to receive us, and as we climbed the ladder and popped up over the roof brink, he apologized that he could not rise to greet us. Mentally he was as bright as ever and not even slightly deaf, and while David was busy with the portraiture I sat beside him and heard how he had lived through the reigns of four Mirs and four Maharajahs of Kashmir (the Mir, it should not be forgotten, had already reigned forty-five years); how proud he was that his son, Sangi Khan, was one of the headmen of Dorkhan, and how he had three sons and twelve grandsons still living at home (not to mention daughters and their children elsewhere). Before we reached the tale of his great-grandchildren, the photography and our visit were drawing to a close. He counted himself at least a hundred, and was certainly well on in the nineties, but still seemed full of the joy of life.

BARLEY SOWING AND "STARVATION SPRINGTIME"

supposed to be able to control rain and sun. It is said of the 000
Mir's grandfather, Ghazan Khan, that he was so skilled in the
art that he could cause rain to fall when wanted and ride un-
wetted through it! On the second afternoon, as we were riding
home, the clouds and mists were darkening in again and
robbed us of some superb photographs we had marked down
for taking on the homeward way. Some cold days ensued—an
unpleasant jar after we had begun to shed cardigans and blan-
kets. Still . . . the Great Cold was definitely over, and the
sound of flowing water was a delight to the ear after the ice-
bound months. An even greater delight was the sight of people
working in their fields again, and all our jolly children friends
romping about. Some of the women and children living quite
near we had not laid eyes on for months.

Everyone was frantically busy. When the women weren't
actually carrying manure out to the fields in their baskets
and dumping it at regular intervals or squatting down to
spread out the heaps evenly over the surface, they were
sitting in groups here and there spinning for dear life in the
welcome daylight and chattering like magpies, exchanging the
gossip of their homes after the long seclusion. When I came
upon any little lot I hadn't seen before, they hailed me
eagerly: "We have missed you!" they shouted. And I laughed
and said: "But I have been there all the time and I have gone
out every day; it is you who have been hiding in your houses,
crouching over the fire!" "That's true," was the laconic
answer, "it was winter." It was fun to be amongst them all
again and find them as natural and friendly and as merry as
ever, and so very much neater and cleaner than I should be if
I had their work to do and only icy water to wash in.

By the third week in February we could with a microscope 243
begin to detect the first shoots of the winter-sown wheat, and 122
even imagine a slight flush of green on the bare white twigs
of the poplars, though the leaf buds had not yet begun to swell
perceptibly.

I passed Kaníza's house one day as they were all busy dump- 000
ing manure and noticed a strange girl helping. I knew that the
married sister in Báltit had generously taken over Kaníza's

BARLEY SOWING AND "STARVATION, SPRINGTIME"

A month later, by the third week of March, we were well into the Spring. The winter wheat formed a bright green carpet on the shelf-like fields, about three-quarters of our Aliabad ground being given over to it. 132

The barley which the men had sown after the Bopfau, just the other day it seemed, was showing green over the most of the rest, and would presently outstrip the wheat and ripen first. The only brown fields left were those that were being prepared for vegetables and potatoes. No leaves were yet showing anywhere, but fat red apricot buds looked promising. 243

As autumn drew in we had begun to feel a little disappointed in our Hunza friends whose marvellous field-walls we had always admired so much with not one single stone out of its place. There were breaches here and there, sometimes quite big ones, and paths were often blocked by a fall of stones, and no one seemed to bother. This puzzled us as out of character, but as soon as the last fear of frost was over, every spare moment was spent by men and boys restoring the countryside to its normal state of faultless tidiness. We now saw the reason of the apparent neglect. The frost and ice simply tear the walls to pieces, and to repair them during winter would be sheer folly. We might perhaps have divined this; but now at any rate we knew. 241

One early day in March we saw Khano on the mountain side walking slowly and with circumspection. This was so strange a sight that we went over to investigate. "What are you carrying so carefully under your choga?" "My first kid," he said, opening his cloak to display the tiny head with triumph. "That's the mother there. I'm expecting four to-morrow. I do hope they won't get born at night in the byre. I'd rather they came when I'm out with them alone." "How do you happen to have so many goats?" we asked. "Oh, I'm herding for the Yerpa now. He's no boys of his own, you see." How crazy it would be to call a lad like that "uneducated" because he doesn't happen to have learned to read or write! He is proudly able to act as accoucheur to his goats, which few of our youngsters at home would feel equal to. We enquired later of Dádo and the rest what sort of wages Khano was able to earn, and their view was that he was probably not given 233

THE FIRST OF THE HARVEST

all thriving. The field walls looked very jolly at this season, with wild flowers of the rock-garden type growing in the crannies between the stones and fostered by the seepage from the irrigated fields above. Amongst them was a wild mint and a wild thyme, the flavouring qualities of which are known and appreciated.

On June 12th we saw some people hungrily eyeing their barley and reckoning that it would be ripe for cutting in another fifteen days. It was said to be good this year in spite of an abnormally cold, late spring. Some rain showers that we had were welcomed though they temporarily cooled the air. But as clouds and rain continued, anxiety began to be felt lest the wheat should be late and delay too long the planting of the buckwheat-on-wheat. The barley is subject to a disease called *tam*, which stripes the leaves an ugly yellow and produces a milky liquid in the ears. Few plants were attacked this year. The disease called *mud* (rust?), which makes black ears, attacks only wheat and millet, and if the cold and rain persisted it might be expected to set in. We were doubly anxious that this year's crops should be good: unselfishly for the people's sake; selfishly lest a bad year should be attributed to the maleficent influence of two crazy people learning Burushaaki—though indeed these highly rational people would be unlikely to indulge any such fantastic association of ideas.

We saw some people one day collecting the under-bark from red willow trees; they use it for dyeing the leather of their native boots and skilfully chip it out from the living tree without injuring the willow.

Now that the people were really within sight of food they frankly confessed to being desperately hungry, and the strain of unremitting work—weeding, ploughing, manuring, grafting, irrigating from dawn to dusk on empty tummies—was showing in drawn, thin faces, but appeared powerless to damp their spirits or fray their tempers. It was dreadful to look on and be helpless to feed the multitude with loaves or fishes, while we lived—sparingly enough by home standards but—riotously compared with these much more deserving neighbours. We saw one day a group of men sitting pensively under a mulberry

THE FIRST OF THE HARVEST

original right-hand loops off on to the left fingers carefully 274
crossing each pair of threads as she does so. Widely drawing
her two hands apart Apicho then drove the set of crossed
threads down on to the edge of the cap, where Kaniza secured
the twelve-fold plait with a large stitch. This was repeated *ad*
infinitum, the braid only showing on the right side of the cap
and the long ugly stitches on the wrong. The process looks
rather like cat's-cradle. I had always wondered why, when
they take such infinite trouble over the minute cross-stitch
embroidery of their caps and the hand-plaited twelve-ply braid,
they finished the cap off with these long stitches. I also won-
dered why it seemed impossible to detach the braid without
its ravelling out. I now saw that braid-weaving and stitching
were part of one elaborate process.

By July 1st the luckier folk were already cutting their 243
barley and clearing a field for their threshing floor without
waiting for the formal harvest-initiation ceremonies of the
Ginani, the date of which is naturally fixed by the Mir to suit
Baltit, 1,500 feet higher, and consequently some days behind
Aliabad. All our potatoes were by now in full flower and our
wheat was turning "fox-colour."

On July 5th we rode over to Baltit for yet another of the 487
Hunza festivals, and ye Gods! it was hot on the road—90 de-
grees in the shade—and we had to start at the very hottest time 132
of day, about 2 p.m. The Mir gave us tea in his nice shady
grass-grown apple orchard before we remounted and climbed
up to the Fort. It is not easy to convey how steep the road
is that in Baltit corresponds to the Mall. Your pony steps from
one boulder to the next with a great lurch, his spine almost
vertical, and for my part I could only just stick on by my usual
technique of thrusting my stirrups back to the root of his tail 487
and firmly gripping his mane with my right hand. The road 361
runs between high stone walls and zigzags wildly. The little
box-like stone houses of the capital are piled on top of each
other in the craziest way—town-planning has to accommodate
itself to the vagaries of a precipitous mountain side. They are
indescribably picturesque, but you would not think them pos-
sible to live in, yet they provide a high degree of simple com-
fort.

FINALITIES

040 She had a bobbed shock of dusty brown hair, long untrimmed, a horizontally-striped jumper of navy and white, lootish navy knickers, and long boots. She made an unheralded descent on a group of Hunza women in a neighbouring field—they fled in terror from the apparition. Unfortunately there was no time for me to round them up and woo them back, for the two newspaper colleagues had to hasten back to Bāltit to join in some festivities in honour of the Resident. We later had the pleasure of hearing them both lecture in London on their astounding journey, and it was hard to identify the beautiful lady in evening dress graciously displaying lantern slides to the Central Asian Society and humorously making light of the hardships and perils of those seven famous months, with the tomboy figure of the Karakoram who had left so vivid a memory behind in Aliabad.

243 By mid-August the last batches of drying⁴ apricots had been gathered in, withdrawing those bright pools of colour which had so gaily painted roofs and boulder surfaces. But the independently sown millets were tossing glorious golden heads (*cho*) far more challenging to the eye than wheat or barley, or graceful tassels of golden rain (*bay*) lovelier even than ripening rice; the millets-on-barley, later sown, were still a brilliant green, and the sweet buckwheat-on-wheat was bursting out into seas of beautiful, sweetly-smelling pink. We were glad not to have had to leave without seeing and scenting sweet buckwheat once again, while the yellow ill-smelling blossoms of the bitter buckwheat were too unobtrusive to spoil the delicate sheets of green amongst which they hid or taint the general air. It was going to be hard to tear ourselves away from Hunza in her summer glory.

040 All our last comings and goings amongst the farmsteads were clouded by "that go-ey feeling" which schoolchildren know so well, casting the shadow of the prison house over the last precious hours of holiday.

After my first ill-advised distribution of a few Woolworth balls amongst the toddlers we had firmly abstained from any form of gift-giving. Now the moment had come when self-discipline could be relaxed. We got up from Gilgit two pony-

No. XXXIX.

Harvesting.

In Hunna first they thresh the harvested barley. Having done so they collect (the grain) and make some thin bread and a cake of thick bread. Then they take big bags to the threshing floor and fill them (with the grain). 537/4 243 •

As they fill them they say thus: "I crave a blessing from the Diquai Pir. In the name of God! O God! Fill my belly, O God! Fill me full, O God! Grant the blessing of Ishkshum, O God!" Saying (these words) they fill the bag.

Two men do the filling. One man holds (up) the mouth of the bag and the other fills it. They make all the others hide themselves. Then the two men, when they have filled (the bags), call to the (concealed men) and bring them up, and the latter, coming up say: "You have brought prosperity!" And the filler replies: "(It is due to your) luck and fortune!" 537/4 243 251

Then they have some food and bring the bags to the house and empty them into the grain-bin. Subsequently they bring in the wheat harvest too, and then the buckwheat. And, setting aside wheat and barley for seed-grain and for funeral rites, they take

11 *Suruho* — not recorded elsewhere; it is perhaps for *suruho* a possible plural form of *su-wi* *gaw* — exactly corresponds to *Shina gw faw* inverted. It is glossed *Hindustani eye picks* which confirms the natural identification with the words **-ji* and *gw* but does not elucidate the sense in which they are used. Compare the term **-ji.ah* (Vocab. **-ah*) also meaning 'funeral rites' which also seem to contain the idea of 'after', 'following'.

The grain is distributed as *alms*, *suruho*, after a death.

the year's food supply out (of the bin) and they sift it in the sun. ⁵⁹⁴ Then they put it into bags and take it away to the mill to be ²⁴³ ground. ²⁵¹

It is the custom to ladle out a *kichati* (2 or 3 lbs. of grain) per bag for the miller, and they also make for him one piece of bread.

Then when they have ground it they bring it back and pour it into the bin and stamp it down with their feet, after which they seal the bin with mud and leave it.

They grind separately their daily rations for consumption during autumn, and then at the Tūmishāling they begin on the barley bin and in spring they begin on the wheat bin.

In Gilgit grain is kept in a *hovel* consisting of a wattle frame which is plastered over with mud. In Persia large clay vessels *sum* are used for similar purposes. The mouth is closed with a lid and the junction is sealed with mud. ^[251]

ī fēlōr — if the idea in the mind is "flour"; *ī fēlōr*, if it is bread.

uy'ezki — v. Vocab. a. v. **-ezki*.

CHAPTER 35

The Hunzan Economy

- 243 FROM THE thrice-told tales of people who write about Hunza and its fertile fields, one might rightfully expect to see bountiful crops of grain bending in the breeze, but I did not expect to see great expanses of waving golden wheat fields in Hunza, so I was not disappointed. The flight from Pindi to Gilgit told me the story better than words. The harsh, flint rock mountains and meager valleys made agriculture a serious, unrelenting affair that taxed man's ingenuity and endurance.

[244] In field crops the Hunzans grow wheat, which I found to be one of their most important foods. I saw more wheat than any other grain. Then there were buckwheat, peas, broad beans, lucerne, millet, barley, rice, onions, potatoes, carrots, turnips and lettuce.

It is said that they can grow two crops a year and, while I did not actually see two crops produced, I noticed that the wheat was harvested in late July and

there would still be ample time to grow another crop before the frost came. Therefore, that adds credence to the statement that they can grow two crops a year.

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I gathered that buckwheat was their most important second crop and it was not hard to understand, because it thrives on the poorer and lighter soils, where other grains might not do as well. Further, it needs only about ten weeks to mature and it has the added advantage of flowering and setting its crops continuously, so that a fair harvest can be had at most any time.

Then, too, it is a crop that can stand the colder weather; that is, the chilly nights in early fall and spring that they are bound to have in these high mountain areas. In actuality, the buckwheat blooms continually and flowers, green seed and ripe seed can be found on the plants at one and the same time.

There is another good reason why the Hunzans grow a lot of buckwheat. It invariably leaves the soil in splendid physical condition and believe me, that is very, very important to the people of Hunza. In addition, this crop makes splendid food for their farm animals. It makes a fine green manure as well as a weed smother crop.

[231]

It must be remembered that buckwheat makes a dandy emergency crop if and when other earlier crops have failed. So it is not hard to understand why it would be one of the most important grain crops in Hunza.

They don't have bees in Hunza, I was sorry to learn, and therefore there is no buckwheat honey.

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The Hunzans are chiefly vegetarians—whether by choice or necessity is hard to establish, although I would say that they had little choice in the matter because they just don't have the area to waste on animals. They can't afford to get their food second-hand. While there

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bread we eat, I was greatly interested when I heard about the people of Hunza and then found out that they eat only bread that is made from whole grain.

Then, when the same books or facts brought to light that the people of Hunza knew few of the world's ills, my interest was aroused to almost a fever pitch. I wondered if there was any connection between the kind of bread that we ate and our health and the kind of bread they ate in Hunza and their health.

From my own observations I also learned that wheat was the most important crop in Hunza, with the exception of apricots. I have also tried to establish which was the first domesticated grain in the annals of human history and I have not been able to establish clearly whether it was wheat or millet. But wheat is more adaptable to the temperate zones, whereas millet leans more to the warmer climes and it is clearly established that wheat is preferred by the white races.

I soon learned that there was a flour mill that functioned regularly, located on the route that we took from the palace at Baltit to the old palace or old fort. So on one of my walks I made it a point to investigate thoroughly the location, the workings and the construction of this old mill.

On my way up when we stopped at Chalt I saw one of these mills in operation, but I did not actually see the grain being made into flour.

For a man who has spent most of his life in the country and on a farm, I feel embarrassed to admit that I had never seen a flour mill in operation before.

During the past quarter of a century, or even a longer period, milling has, generally speaking, come into the hands of large corporations and that is why, I assume, I got it into my head that milling was a complicated big-time operation that required a great investment

256 splash against the water wheel or paddle. The force is
[376] sufficient to make the millstone revolve at a tremendous
pace. The water can be quickly shut off by just putting
the missing stone back in place, diverting the water
flow down the conduit.

The millstones are enclosed by a tray or bin about
5 or 6 inches high. As the ground wheat or flour is
forced out between the stones, it slowly fills the bin.
Then it is scooped up into goatskin bags, usually by a
[262] woman who is looking after the mill. In this manner it
is carried to the individual homes to be used in mak-
ing the wholesome whole wheat Hunzan bread and
chapatties.

There appeared to be no large scale or assembly line
grinding. Each individual came in with a container of
wheat to be ground.

[262] Barley and rye are also used for flour and occasion-
ally, millet and buckwheat.

262 The earliest crop that can be ground into flour in
[243] Hunza is barley. After the long winter, food supplies
[527] are worn to the near starvation level and when the first
barley is ready for harvest, people of Hunza have cause
to celebrate and do so in their barley festival.

252 I soon learned why chapatties were used in prefer-
262 ence to bread, not only in Hunza but all over Pakistan
and India. A chapatty requires only flour and water, a
bit of mixing and then rolling out and laying on a piece
of metal that is laid over a fire. In a few minutes it can
be turned and then it is ready for eating. Even though
bread might taste better, it certainly would require a
lot more preparation. Simplicity is the keynote!

251 From what I saw, very little flour is stored and prob-
ably the people of Hunza have long ago learned their
lesson, that wheat ground into flour does not have long
keeping qualities.

There is more wheat grown in Hunza than any other single grain crop. Therefore the wheat they use must be one of the vitally important contributors to the health of these people. 243
[64]

If you will take time to study the habits or the peculiarities concerning the growing of wheat, you will quickly learn that wheat will not grow on poor or unbalanced soils. One of the first things that my father taught me many long years ago was that your best land must be used if you want to grow a good crop of wheat. Rye or barley, he told me, you can grow most anywhere, but wheat is fussy. If the nutrients aren't there in the soil, the wheat will not grow and your crop will be a failure. All through my travels in Nagir and Hunza I saw wheat and it looked good. It wasn't the same tall wheat that we grow in the Canadian West, but it was wheat and the yield was comparatively bountiful, which means that the Hunzan soil must contain the required nutrients—and to grow wheat, there are many.

Therefore there is a direct connection between the nutrient contents of the soil of Hunza and the wheat that it grows, the flour that they use, the bread that they eat and the health of these people.

Here and now I want to explain that I am not making decisions for anyone. I am trying to lay down the facts as I found them. As stated above, in order to grow good wheat or even to grow wheat at all, the soil must contain all of its required nutrients. It is obvious, therefore, that the soil has the required nutrients and as all of the Hunzan soil is shallow, these nutrients must be regularly reincorporated into the soil. 243
134

I have already related that everything that is taken from the soil is returned to the soil by the natives. Consequently we know that nothing is lost. Hunza does not export food. That I know, because there is barely 243
[439]

- 243 sufficient for their own needs. They often trade or
[438] barter with the Nagirwals for short items.

Therefore, is the ordinary means of field husbandry as practiced by the people of Hunza the answer? It must be at least part of the story, but how big a part, I am unable to say.

That people avoid discussing this unpleasant topic is understandable; yet, by doing so, you and others who have no opportunity of visiting these areas get ideas given an incorrect picture. Whereas, in Pakistan and India, this unpleasant business took place practically everywhere, it was with a genuine feeling of relief and thankfulness that I found in Hunza it is permanently almost practiced—at least, I never saw even a sign of any such thing taking place—but evidently human excrement is used there. It is buried and eventually leads its way to the fields.

It took quite a search to track down the ways and means and methods of using this night soil. I know that it is used extensively in the East and far than regions; it is also used in Mexico and perhaps in other parts of the Western world. There is no reason why it shouldn't be used if proper methods of curing or mellowing are followed. After all it is said and done, our sewage tanks are only putting a natural principle to work, but the danger of it is that in most cases it is entirely wasted.

The most common method of using night soil in Hunza was to place it in a deeply (as deep as the rocky terrain of Hunza would allow) dug pit, which was carefully kept covered, and eventually, a trail or two later, it was distributed over the fields.

Harvesting a crop of grain in Hunza is very much unlike our Western methods. They do not cut their grain but each wheat plant, or other grain, is pulled out individually, root and all, by hand. Then it is laid in neat bundles on the ground. When the harvesting or grain pulling process is complete, the roots are separated from the stalks by being cut or chopped off in bundles.

that may exist or be created in an agricultural community, no seed is available, the Mir has been known to procure supplies from neighboring states and supply his people with sufficient planting stock. 241 643

While through the entire East cow dung and yak dung are used for fuel, in Hunza this is positively not true. The Hunzans are too intelligent to use the mainstay of their lives for fuel. Once it is burned it is gone; but if it is put back into the land, it is there to produce crops for another year. They show their intelligence, if proof of their intelligence is needed, by this one sound principle of self-survival in their means of agriculture. 241 372

However, in the more northerly sections of Hunza, closer to the Chinese border, they do use yak dung for fires because of the almost total lack of wood or other types of fuel. They just have to keep themselves warm during the winter.

Here is a list of the vegetables grown in Hunza—potatoes, turnips, carrots, beans, peas, lettuce, pumpkins, tomatoes, melons, watermelons, radishes, onions, cabbage, spinach, cauliflower. 244

In fruits there are mulberries, apricots, apples, pears, peaches, grapes, walnuts, almonds, a few plums and some cherries. 245

Grapes are grown fairly extensively because they can plant them against most any wall, as long as they have a bit of soil in which to gain a foothold for their roots. From these grapes they make their Hunzan wine. [273]

They grow a few strawberries, but I could find no currants, gooseberries, raspberries—nor did they know what raspberries were.

The grains grown in Hunza, starting from the most important, are wheat, barley, rye, millet, buckwheat and a small quantity of rice. Some alfalfa is grown as a forage crop. 243 246